Figure 1

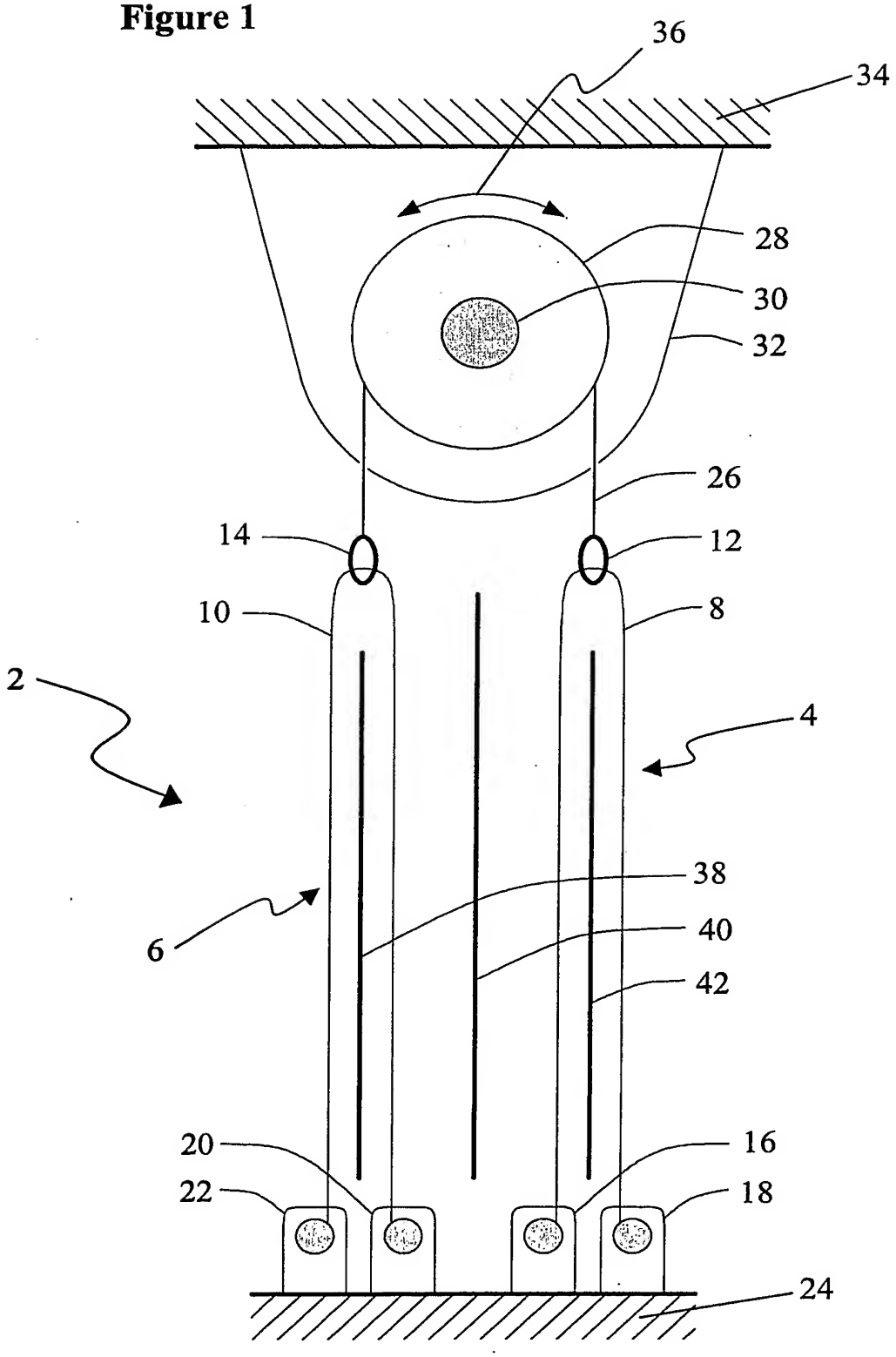


Figure 2

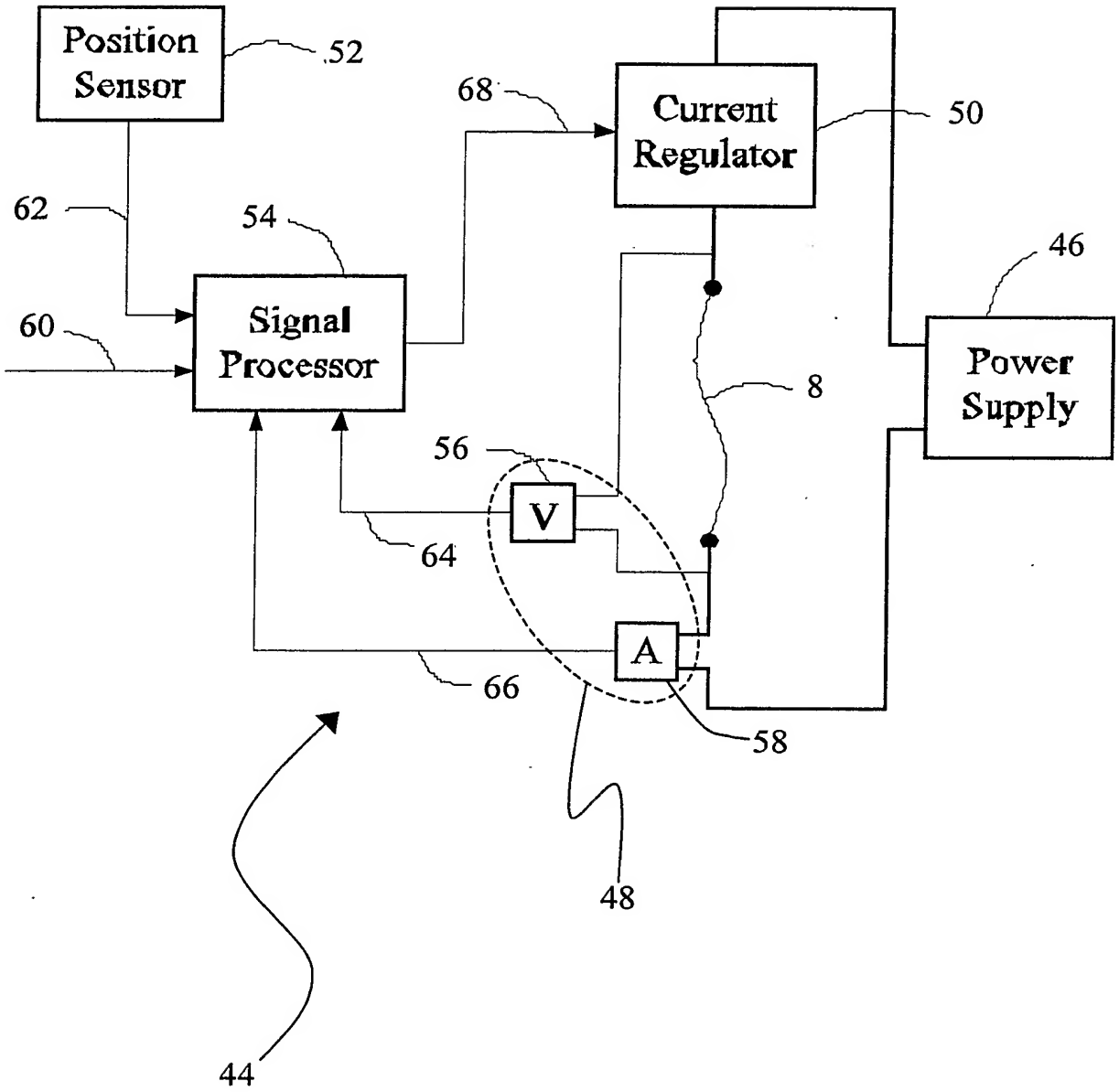

Position Sensor
52
68
Current Regulator
50
62
54
46
60
Signal Processor
8
Power Supply
56
V
64
A
66
58
48
44

Figure 3

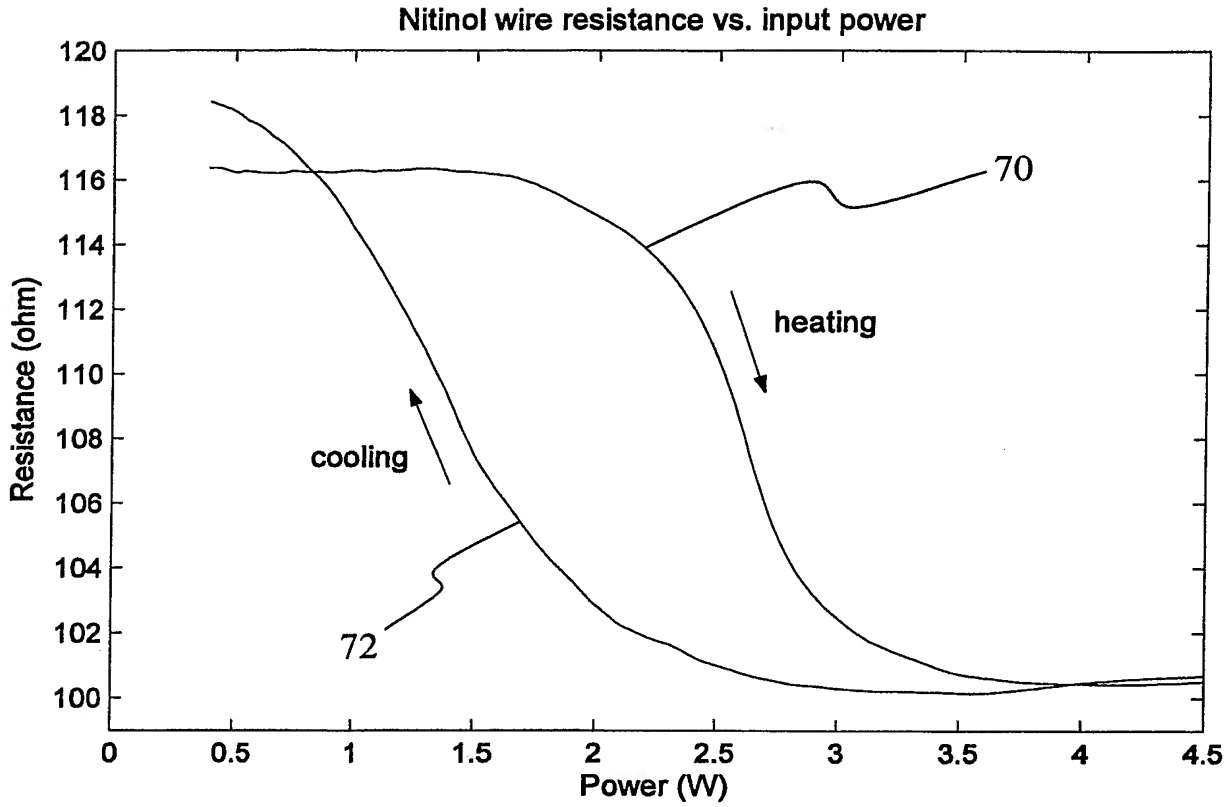
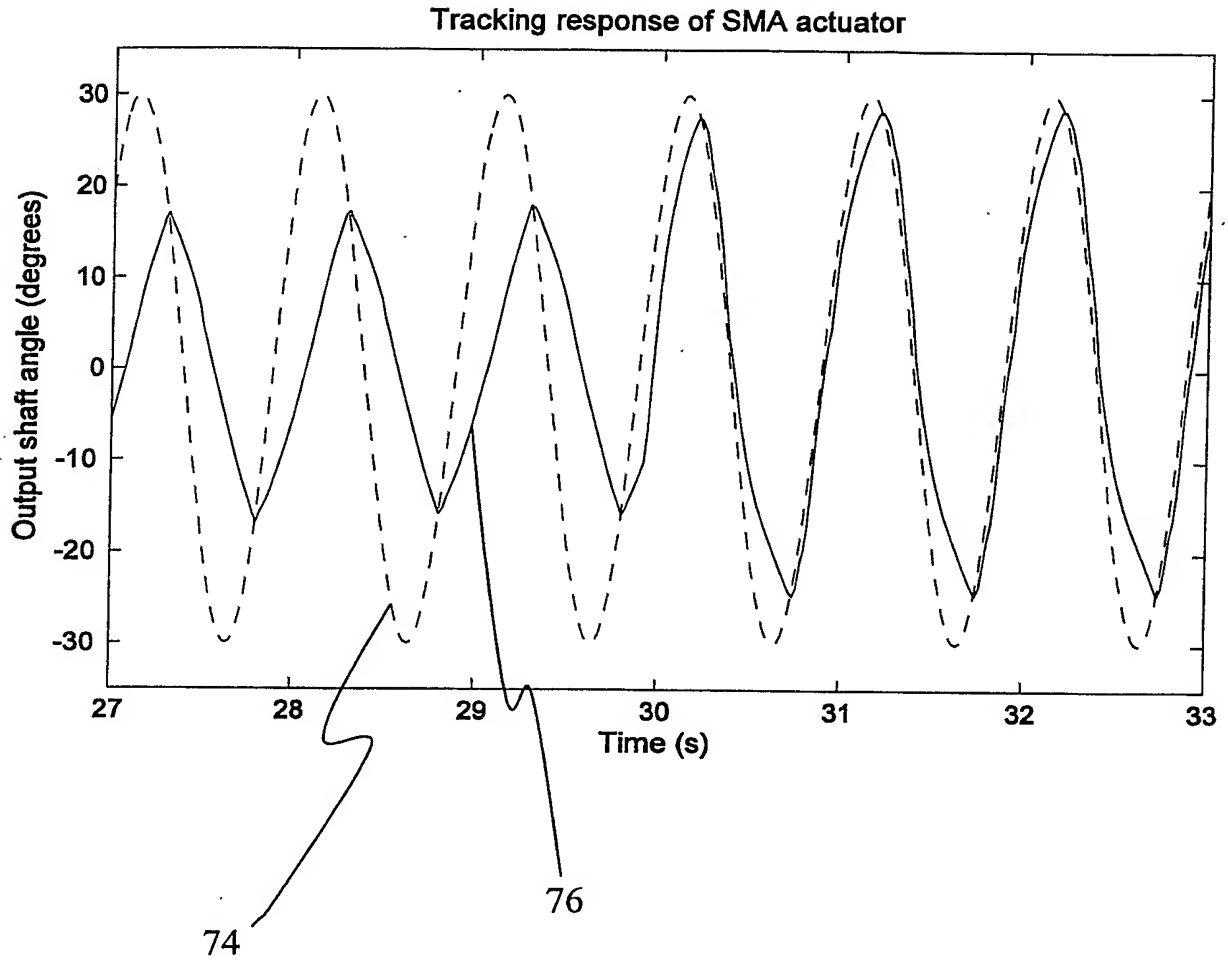

Nitinol wire resistance vs. input power
Resistance (ohm)
Power (W)
120
118
116
114
112
110
108
106
104
102
100
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
70
heating
cooling
72

Figure 4


Tracking response of SMA actuator
Output shaft angle (degrees)
30
20
10
0
-10
-20
-30
27
28
29
30
31
32
33
Time (s)
74
76